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4 September 1990

# Tips on How to Cut Technical Publications Costs

Command Support Department

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**Naval Underwater Systems Center**  
Newport, Rhode Island • New London, Connecticut

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## **PREFACE**

This document was prepared by the Command Support Department  
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**REVIEWED AND APPROVED: 4 SEPTEMBER 1990**

A handwritten signature in black ink, appearing to read "D. W. Candler", with a long horizontal flourish extending to the right.

**D. W. Candler**  
**Head, Command Support Department**

# REPORT DOCUMENTATION PAGE

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13. ABSTRACT (Maximum 200 words) <p>→ This document presents a brief collection of tips on how to cut the editing and production costs of technical publications. The tips presented were contributed and compiled by NUSC publications editors and are directed primarily at the authors of technical reports, technical articles, and other Navy documentation. <i>Keywords:</i></p>					
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## TIPS ON HOW TO CUT TECHNICAL PUBLICATIONS COSTS

Don't waste your money - get the "bugs" out of your manuscript while it is still in draft form. Technical reports require a technical review before the draft is submitted to the Publications Division for final preparation. This policy was established to permit technical questions resulting in major revisions to be addressed before time and money are spent on the final preparation of illustrations and camera-ready text. Technical reviewers will often suggest that certain illustrations or text be deleted or revised extensively. Your publications costs are minimized when these changes are made while the manuscript is still in draft form. When such changes are required after the manuscript is in camera-ready form, publications costs can soar!

\* \* \*

The First Law of Editing states that the amount of editing a report requires is inversely proportional to the amount of time an author spends revising and "fine tuning" the rough manuscript. Reviewing, revising, and rewriting your manuscript several times can pay major dividends at publication time. It can mean a better report that will be more quickly and less expensively published than a carelessly prepared manuscript.

A related consideration is supervisory and managerial review of your manuscript. NUSC publication policy requires preview by an author's branch, division, and department heads before editing begins, as well as final management review by the author and formal approval (sign off) by the department head or associate technical director before printing. You would be wise to ensure that the prepublication review is not a perfunctory one. Major changes or rewrites resulting from supervisors' or managers' comments are much less costly and much more easily accommodated at the editing stage than at the final review stage.

\* \* \*

You can cut publications costs by doing some of the production work yourself (for example, incorporating the editor's changes on your own word processing system). Publications personnel will still put together your camera-ready copy by preparing the front matter (cover, preface, DD 298) and back matter (internal and external distribution lists), determining the correct size of the figures and then pasting them up on frame pages, preparing the routing sheet, and completing the print form for NPPSDO.

\* \* \*

You can cut editing/composition costs in the preparation of lengthy manuscripts by setting up each chapter or section with appropriate page, figure, table, and equation numbers. For example, chapter 1 page, figure, table, and equation numbers would be 1-1, 1-2, 1-3.; chapter 2 would be 2-1, 2-2, 2-3, etc.; chapter 3 would be 3-1, 3-2, 3-3, etc. Later editions or deletions of pages, figures, etc. in a particular chapter would require renumbering of only that chapter and not the entire manuscript. This methodology may not seem to be important at first, but envision a 300 page document numbered sequentially from page 1 to the end of the manuscript. In the review process a page, figure, table, or equation in chapter 1 has been deleted. This change would require that every page, figure, table, or equation in the entire manuscript be changed by the editor, corrected by the compositor, and proofread by the editor/author for accuracy. Further, each mention of a figure, table, or equation in the text would have to be revised as well. Publication costs would increase rapidly. That will not happen if you sectionalize the numbering system.

\* \* \*

Stick to black and white illustrations and photographs unless color is absolutely essential to communicate information. For example, if you have a graph with multiple curves, use dots, dashes, etc., to distinguish each curve. Do not use color. Printing in color costs much more than printing in black and white. Moreover, the Navy Publications and Printing Service Office will not approve color printing unless it is absolutely justified. Further, the Defense Technical Information Center cannot store color pages in its technical information data base, and requests for copies of such documentation will be printed in black and white.

\* \* \*

Don't waste money relettering illustrations that have to be reduced. When requesting graphic arts services, specify what the finished product's size will be (e. g., image area required in a technical report or the page size of a professional journal). The graphic artist will use that information to select the proper lettering size so that the final product will be readable. For example, if callouts have to be added to an oversized graph or computer printout that has to be reduced 50 percent to meet the image area specified for a technical report, the initial lettering must be oversized so that it is readable after it has been reduced. The Publications Division will be happy to assist you in this matter so that quality can be maintained while still meeting the specifications of a particular media - without the need to reletter illustrations.

\* \* \*

With today's capable computer graphics and imaging software, most authors of technical reports also produce their own illustrations. Here are some rules of thumb that might help you avoid having to redo your illustrations:

- . Attempt to keep all illustrations in a vertical (portrait) orientation (maximum width 6 1/2 inches; maximum height 8 1/2 inches).

- . If an illustration must be placed horizontally, keep its maximum height to 6 inches and its maximum width to 9 inches.

- . Be sure that all similar illustrations (whether or not intended for direct comparison) are drawn to the same scale.

- . Use a type size of 8 to 10 points for all illustration lettering. If an illustration will have to be reduced before it can be used in a report, its initial type size should be such that it reduces to 8-10 point after reduction.

- . Use all-capital letters for callouts, labels, and other lettering on illustrations. If the use of capital letters leads to ambiguity (e.g., MW vs mw), spell out the ambiguous term (e.g., MEGAWATT or MILLIWATT).

- . Avoid foldouts whenever possible.

\* \* \*

When you request viewgraphs/slides for a presentation that is also going to be prepared as a Technical Document, give that information to the Graphics Division so they can use appropriate lettering. A typical page in a presentation document is set up with a viewgraph handled as a figure positioned on the upper half of the page while the text explaining the viewgraph is on the lower half of the page. If Graphics personnel are informed beforehand that your presentation will later be turned into a Technical Document, they can select appropriately sized lettering that will "hold up" when it is reduced to camera-ready size in the document. Generally, a viewgraph with an image of 9.5 x 7 inches is reduced to fit an image area of 6.5 x 4.75 inches (reduced to approximately 70 percent of its original size). The Publications Division will be happy to assist you in this matter so that quality can be maintained while still meeting the specifications of a particular media.

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Complete computer programs or listings of program codes are often included in technical reports as supporting material. Such material frequently presents two particular problems at publication time: (1) it is of poor reproducible quality and requires enhancement or reprinting to be suitable for camera-copy use; and/or (2) it is run on 11 by 14 tabulating paper, making it too large for direct use in the report, and necessitating the reduction, patching, and remounting of each page.

If you're going to include a program listing in a report, format the listing so that it prints out on 8 1/2 by 11 paper with adequate (i.e., 1-inch) margins on all sides. Before printing out the listing, check your printer's output quality; add dry ink or change the ribbon to ensure sharp, bold characters that will reproduce well.

If you must print out a listing on tabulating paper, use the white side of the paper (not the side with the tint bars) and don't print across the perforations.

\* \* \*

The costly, time-consuming, error-introducing task of rekeyboarding report manuscripts is now a thing of the past. The NUSC Publications Division has two capabilities that preclude the retyping of most manuscripts:

- . Hard copy can be scanned into the division's word processing system or

- . Diskettes can be converted from any MS-DOS word processing format.

The Division's scanner requires unmarked double-spaced text of 10 or 12 pitch (characters/inch) with 1-inch margins on all sides of the page. An original is preferable but the scanner can read up to third generation copies. The scanner is compatible with NBI, Xerox, DEC, IBM, and Lanier word processing systems.

The Division's online conversion software allows direct conversion of diskettes from the following MS-DOS word processing packages: MultiMate, Wordperfect 4.2 and 5.0, Wordstar, Displaywrite, Officewriter 6.0, Microsoft Word 3.0 and 4.0 and Professional Write 1.0 and 2.0. Conversions from and to ASCII files are also possible. Diskettes for conversion should be 360K, double-sided, MS-DOS format.

While these capabilities have some relatively minor drawbacks, such as the misscanning of certain characters or the loss of formatting when converting ASCII files, they are far preferable to rekeyboarding an entire document or having an author spend valuable time incorporating numerous editing changes.

\* \* \*

The list of references in a technical report is frequently a source of annoyance to authors at publication time. Publications editors are required to verify all reference entries and to check all text citations. When incomplete or incorrect entries or improperly sequenced citations are encountered, an editor has no choice but to correct the matter and often spends much time on what some authors perceive as needless details.

You can save time, money, and annoyance by ensuring that each of your reference entries is complete and accurate; make sure that author names and reference titles are exactly as they appear on the reference; include all required information (see NUSC TD 7333A, page 2-19, for guidance on the various types of reference entries); include the security classification for all DoD and DoD-sponsored works. Check that all listed references are cited in the text. Ensure that the sequencing of the reference list corresponds to the sequencing of the text citations. Reference 1 must be the first reference cited in the text; reference 2, the second; and so on.

\* \* \*

Once finalized, formal reports (TRs and TDs) undergo management review and approval to publish. Some authors pull the report out of the review cycle and bring it back to the Publications Division for interim revisions to incorporate last-minute changes suggested during each step of the review process. Under most circumstances, this action is unnecessary and a waste of time that delays the final publication date. Most reviewers are accustomed to seeing hand-written comments, and in fact, many welcome such annotations, viewing them as an indicator of the thoroughness and validity of the review process. Thus, unless a report has a major problem that was overlooked by the technical reviewer, it is much more cost effective to simply let all review comments accumulate right up through the approving official. Then, with the review completed, the Publications Division will make all the changes at once and promptly arrange for printing and distribution.

\* \* \*

You can make the task of preparing distribution lists much simpler and save time and publications costs by following a few easy steps:

1. Check code and spelling of each name.
2. Submit typed copy to avoid errors in codes and names.
3. When the Publications Division retains your distribution list on a diskette, especially if it is lengthy, mark up the same list so that it does not have to be rekeyed.



4. Divide internal lists into Newport and New London personnel; include 2 copies for your library and one for the other laboratory's library; do not forget to include yourself and the number of copies you require. (Remember that the Administrative Services Branch no longer stores extra copies.)

5. For external lists, include 2 copies for DTIC if the report has limited distribution, 12 if unlimited (public release); include one copy for CNA; include the Navy contract number when you are sending to a non-government agency if the publication is classified or has limited distribution; provide mailing labels for each organization on the distribution list (one label for unclassified, two labels for classified); check all addresses carefully.

\* \* \*

Authors of technical manuscripts should carefully review their intended distribution lists to ensure that only essential addressees are included. This is especially true of SECRET reports, because initial distribution and continuing control involve considerable cost and extensive paperwork by both the Publications Division and the Library Division. Most internal addressees do not want to be held responsible for SECRET material, and they often return the material to the Library's Secret Control Staff almost immediately after receipt. This action then leads to additional paperwork, as well as handling, storage, and destruction costs. A simple solution to this problem is to request that a single copy of your report be routed to a list of interested parties. Once the routing is completed, the copy will come back to the library and no one will be charged with its retention. Not only does this reduce the initial costs of printing and distribution, but it also saves time, money, and potential security lapses by limiting the quantity of SECRET material in circulation.

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# INITIAL DISTRIBUTION LIST

<u>Addressee</u>	<u>No. of Copies</u>
DTRC ANNA	1
DTRC CARD	1
NRL	1
NAVOCEANO	1
NAVAIRSYSCOM (Library)	5
NAVWPNSCEN	1
NOSC (Library)	2
NUWES, Keyport	1
NTIC	1
NAVSUBSCOL	1
NAVPGSCOL	1
NAVWARCOL	1
NAVTRASYSCEM (Technical Library)	1
DTIC	2